

Art Unit: 1792

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The Board of Patent Appeals and Interferences affirmed the rejection(s) against independent claim 1, but reversed all rejections against claim 2 dependent thereon. The independent claim(s) is/are cancelled by the examiner in accordance with MPEP § 1214.06. Dependent claim 2 is converted into independent form by examiner's amendment, claims 1, 3-8 and 17-18 are cancelled, and claims 2, 10-12, 14-15 and 20-25 are allowed.

The application has been amended as follows:

In the specification:

In paragraph [0001], line 3, after "patent number" delete "_____" and
insert - - 6,666,546 B1 - -

In the claims:

Replace the claims with the following claim listing:

Art Unit: 1792

1. (cancelled)

2. (currently amended) ~~The method of claim 1,~~ A method comprising:

forming a slot into a substrate and extending between a first substrate surface and a generally opposing second substrate surface, the slot extending along a long axis that extends generally parallel the first surface and being defined, at least in part, by a pair of sidewalls which extend generally parallel to the long axis; and

forming at least one bowl-shape into the substrate so that the long axis passes therethrough, the bowl shape being connected to the pair of sidewalls of the slot and defining, at least in part, a terminal region at an end of the slot,

wherein said act of forming at least one bowl shape comprises forming at least one bowl shape into the first surface of the substrate, and wherein the at least one bowl shape has a width at the first surface measured generally orthogonal to the long axis that is greater than a width at the first surface measured generally orthogonal to the long axis between the pair of sidewalls.

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (cancelled)

9. (cancelled)

Art Unit: 1792

10. (previously presented) A method comprising:

forming a fluid-feed slot between a first substrate surface and a second generally opposing substrate surface, the fluid-feed slot extending along a long axis which extends generally parallel to the first surface, and having a central region and at least one terminal region arranged along the long axis wherein the terminal region is wider at the first surface than the central region as measured generally orthogonally to the long axis; and,

blending the slot at the first surface, at least in part, to decrease stress concentrations on substrate material proximate the first surface.

11. (previously presented) The method of claim 10, wherein said act of forming comprises forming two terminal regions with the central region interposed therebetween.

12. (previously presented) The method of claim 10, wherein said act of forming comprises forming at least one terminal region which is generally elliptical when viewed from above the first surface.

13. (cancelled)

14. (previously presented) A method comprising:

forming a fluid-feed slot by removing substrate material between a first substrate surface and a second generally opposing substrate surface, the fluid-feed slot extending along a long axis which lies generally parallel to the first substrate surface, the fluid-feed slot having a cross-section at the first surface and taken generally parallel the first surface comprising a narrower central region positioned between two wider terminal regions; and,

rounding the slot at the first surface by removing additional substrate material, at least in part, to decrease stress concentrations on substrate material proximate the first surface.

Art Unit: 1792

15. (previously presented) The method of claim 14, wherein said act of rounding comprises contacting substrate material with a drill bit.

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (previously presented) A method comprising:
forming a central region of a slot into a semiconductor substrate the central region extending between a first substrate surface and a generally opposing second substrate surface;
and,

forming two terminal regions of the slot into the first surface generally contiguous with and interposed by the central region, each of the two terminal regions having a width at the first surface taken generally orthogonal to a long axis of the slot that is greater than a width of the central region at the first surface taken generally orthogonal to the long axis of the slot.

21. (previously presented) The method of claim 20, wherein said act of forming two terminal regions comprises forming two terminal regions which do not extend to the second surface of the substrate.

22. (previously presented) The method of claim 20, wherein said act of forming two terminal regions comprises forming two terminal regions which extend through less than a majority of a thickness of the substrate as defined between the first and second surfaces.

Art Unit: 1792

23. (previously presented) The method of claim 20, wherein said act of forming two terminal regions comprises forming two terminal regions which are generally circular when viewed from above the first surface.

24. (previously presented) The method of claim 20, wherein said act of forming the central region comprises rounding the central region into the first surface and wherein said act of forming two terminal regions comprises rounding the two terminal regions into the first surface.

25. (previously presented) The method of claim 20 further comprising forming two additional terminal regions into the second surface which are contiguous with and interposed by the central region.

Art Unit: 1792

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K. Alanko whose telephone number is 571-272-1458. The examiner can normally be reached on Mon-Fri until 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anita K Alanko/
Primary Examiner, Art Unit 1792